



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,419	01/09/2004	Kia Silverbrook	DAM01US	6374

24011 7590 07/11/2006

SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, NSW 2041
AUSTRALIA

EXAMINER

MASINICK, MICHAEL D

ART UNIT	PAPER NUMBER
----------	--------------

2125

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,419

Applicant(s)

SILVERBROOK, KIA

Examiner

Michael D. Masinick

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-24 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-17, 19, 20 and 23 is/are rejected.
- 7) ☒ Claim(s) 2, 21, 22, 24 and 26-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's amendments filed 6/8/2006 have moved subject matter previously indicated as allowable into independent claim 1. A further search has uncovered art that reads on the claim as written when combined with the previous prior art used in the rejection. All double patenting rejections are removed due to the filing and acceptance of a terminal disclaimer. All previous 112 rejections are removed based on the amendment filed. This action is non-final.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.
3. The wording of claim 5 is confusing and does not clearly state the intention of the claim.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 6-17, 19, 20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,594,652 to Penn et al in view of U.S. Patent No. 6,641,243 to Anderson et al.

1. Referring to claim 1, Penn shows a three dimensional object creation system that prints objects layer by layer, the system including a plurality of printheads (Column 6, lines 51-65), the system printing at least part of each of multiple layers simultaneously (Column 11, lines 40-49).

2. Penn does not show where the plurality of printheads are maintained at certain temperatures. The Anderson Patent shows a temperature control system for printheads.

3. It would have been obvious to one of ordinary skill at the time the invention was made to use the temperature control system for printheads to control the temperature of the printheads in the Penn patent because printheads in an "array" formation operating at different temperatures may lead to ink droplet variation (Column 1, lines 32-44 of Anderson).

4. Referring to claim 3, Penn shows wherein a plurality of objects are simultaneously printed (Column 13, lines 1-26).

5. Referring to claim 4, Penn shows that when completed, the objects are substantially identical. Examiner notes that this is the purpose of the 3D prototyping system of Penn and column 1 notes that these models are created in "low volume".

6. Referring to claim 6, Penn shows wherein each printhead only prints part or all of a predetermined layer (Figure 12, Column 3, lines 27-32).

7. Referring to claim 7, 19, 20 Penn shows wherein at least one layer has at least two different materials (Top of column 3).

Art Unit: 2125

8. Referring to claim 8-10, Penn shows wherein at least one layer is printed by at least two inkjet printheads per layer able to print the width of the objects (figure 12).
9. Referring to claim 11, Penn show wherein multiple layers of the same material are printed (top of column 3).
10. Referring to claim 12, Penn shows including a plurality of layer groups, each layer group including at least one printhead, each of the layer groups configured to print a different layer of the objects (Figure 1A).
11. Referring to claims 13-17, Penn shows layer groups, multiple printheads, and voxels (in addition to what was noted above, view the abstract for voxels).
12. Referring to claim 23, Penn shows wherein the system includes semiconductor memory and wherein data defining at least one layer is stored in the semiconductor memory (Column 9, "microprocessor control system").

Allowable Subject Matter

All claims not treated above are considered to have allowable subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Masinick whose telephone number is (571) 272-3746. The examiner can normally be reached on Mon-Fri, 7:30-4:00.

Art Unit: 2125

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael D Masinick
Examiner
Art Unit 2125

MDM, ~~March 17, 2006~~
June 30, 2006